

laminates

DELMAT POLYESTER (GPO-3) 68200

- ▶ Classified GPO-3 according to NEMA LI 1
- ▶ Good mechanical properties at high temperatures (Temperature Index 155)
- ▶ Flame retardant above 2,4mm thickness
- ▶ Halogen free
- ▶ Easy to cold punch up to 6mm

General description

Delmat Polyester (GPO-3) 68200 are laminates based on glass mat and polyester resin systems.

RoHS Directive

Hazardous products listed in the EU-directive 2002/95/CE (ROHS-directive), §4 section 1, are not used as ingredients in this material.

Application

Switchboards
LV- and HV circuit breakers
Phase barriers
Switchboard bottom plates
Arc chute chambers panels
Connection supports
Protection panels
Insulation carriers
Cable clamps
Bus bars supports
Power electronics...

Standards

NEMA LI.1 : GPO-3
IEC 60893 : UP GM 203
NF C 26-153 : Vm P2e

Form of delivery

Sheet size : 2000 +/-10mm x 1000 +/-10mm
Thicknesses : 0,8mm to 60mm

The sheets are untrimmed. Homogeneity on a width of 13mm from the edges is not guaranteed.

This product can be delivered in machined parts according to specific drawings.

Colour

Grey, RAL 7035

The product properties set forth in this data sheet are based on the results of testing of typical material produced by the affiliated companies of Von Roll Holding Ltd. (underneath referred as Von Roll). Some variation in product properties is typical. Comments or suggestions relating to any subject other than product properties are offered only to call the end-user's or other person's attention to considerations which may be relevant in the independent determination of the use and/or manner of use of product. Von Roll does not claim or warrant that the use of its product will have the results described in this data sheet or that the information provided is complete, accurate or useful. The user should test the product to determine its properties and its suitability for the intended use. Von Roll expressly disclaims any liability for any damage, harm, injury, cost or expense to any person resulting directly or indirectly from that person's reliance on any information contained in this data sheet. Nothing contained in this data sheet constitutes representation or warranty as to any matter whatsoever. Von Roll makes no warranties whatsoever in this data sheet, expressed or implied, including any implied warranty or fitness for a particular use or purpose. Von Roll shall in no event be liable for incidental, exemplary, punitive or consequential damages.

		Value	Test norm
Physical properties			
Water absorption after 24h immersion at 23°C, thickness 4mm	mg	<50	ISO 62 (method 1)
Flammability according to UL 94 (thickness > or = 2,4mm)		94 V-0	UL 94
Density	g/cm ³	1.8 ± 0.1	ISO 1183 (method A)
Mechanical properties			
Edgewise notched impact strength Charpy	kJ/m ²	47	ISO 179
Flexural strength at 130°C, flatwise	MPa	70	ISO 178
Tensile strength, //, at 23°C	MPa	70	ISO 527
Compressive strength //, at 23°C	MPa	160	ISO 604
Edgewise notched impact strength IZOD	kJ/m ²	47	ISO 180
Flexural strength at 23°C, flatwise	MPa	130	ISO 178
Bonding strength (10mm thick)	N	4000	ASTM D 229
Modulus of elasticity in flexure at 23°C, flatwise	MPa	8000	ISO 178
Compressive strength at 23°C, flatwise	MPa	230	ISO 604
Thermal properties			
Temperature index (TI)		155	IEC 60216
Electrical properties			
Insulation resistance, as received	MOhm	10 ⁷	IEC 60167
Edgewise breakdown voltage, step by step, in oil at 23° C after immersion 48h/50°C/water	kV	30	IEC 60243-1
Comparative tracking index - CTI		600	IEC 60112
Edgewise breakdown voltage, step by step, in oil at 90° C, as received	kV	60	IEC 60243-1
Flatwise electric strength, step by step test, in oil at 90°C	kV/mm	12	IEC 60243-1
Relative permittivity at 1 MHz		<4.5	IEC 60250
Arc resistance	s	180	ASTM D 495
Dissipation factor at 1 MHz		<0.05	IEC 60250
Insulation resistance, after 24h immersion in water at 23°C	MOhm	10 ³	IEC 60167
Tracking and erosion resistance		1 B 2.5	IEC 60587